F TENT COOPERATION TREA

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

			 _
_			
To.			

Commissioner

US Department of Commerce United States Patent and Trademark

Office, PCT

2011 South Clark Place Room

CP2/5C24

Arlington, VA 22202

Date of mailing (day/month/year) 06 June 2001 (06.06.01)	in its capacity as elected Office		
International application No. PCT/US00/17477	Applicant's or agent's file reference RCA89633		
International filing date (day/month/year) 26 June 2000 (26.06.00)	Priority date (day/month/year) 15 July 1999 (15.07.99)		
Applicant			
NEAL, Charles, Bailey			

١.	The state of the s
1.	The designated Office is hereby notified of its election made:
	X in the demand filed with the International Preliminary Examining Authority on:
	09 February 2001 (09.02.01)
	in a notice effecting later election filed with the International Bureau on:
2.	The election X was
;	made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Henrik Nyberg

Telephone No.: (41-22) 338.83.38

Facsimile No.: (41-22) 740.14.35

NC



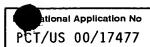
PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference				ational Search Report applicable, item 5 below.		
RCA89633 International application No.	International filing date (day)	(month/wood)	(Farlingt) Priority D	late (day/month/year)		
ппетапонагаррисатот но.	international ming date (day)	(Inionity year)	(Earliest) Priority Date (day/month/year)			
PCT/US 00/17477 26/06/2000 15/07/1999						
Applicant						
THOMSON LICENSING S.A.						
THOMSON EIGENSING S.A.						
This International Search Report has bee according to Article 18. A copy is being tr			ority and is transmitte	ed to the applicant		
This International Search Report consists X It is also accompanied by	of a total of 2 a copy of each prior art docur	sheets. nent cited in this r	eport.			
Basis of the report						
 a. With regard to the language, the language in which it was filed, un 			s of the international	application in the		
the international search w Authority (Rule 23.1(b)).	vas carried out on the basis of	a translation of the	e international applic	ation furnished to this		
b. With regard to any nucleotide ar was carried out on the basis of the	e sequence listing :		ernational application	n, the international search		
	onal application in written form.					
	filed together with the international application in computer readable form.					
furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readble form.						
	b this Authority in computer real		es not go beyond the	e disclosure in the		
· ·	is filed has been furnished.					
furnished	ormation recorded in computer	readable form is	identical to the writte	en sequence listing has been		
2. Certain claims were fou	nd unsearchable (See Box I)					
3. Unity of invention is lac	king (see Box II).					
4. With regard to the title ,						
the text is approved as su	ubmitted by the applicant.					
	shed by this Authority to read a	s follows:				
5. With regard to the abstract,						
X the text is approved as su	ubmitted by the applicant.					
	shed, according to Rule 38.2(b e date of mailing of this interna					
6. The figure of the drawings to be pub	lished with the abstract is Figu	re No.	3			
X as suggested by the appl	icant.			None of the figures.		
because the applicant fai	led to suggest a figure.			•		
because this figure better	characterizes the invention.					





A. CLASS IPC 7	SIFICATION OF SUBJECT MATTER H04N9/64 G09G5/06			
According	to International Patent Classification (IPC) or to both national classifica	ation and IPC		
	SEARCHED			
Minimum d	locumentation searched (classification system followed by classification HO4N G09G	on symbols)		
Documenta	ation searched other than minimum documentation to the extent that s	uch documents are included in the fields se	arched	
Electronic	data base consulted during the international search (name of data bas	se and, where practical, search terms used		
EPO-Ir	nternal, PAJ, WPI Data			
C. DOCUM	MENTS CONSIDERED TO BE RELEVANT			
Category °	Citation of document, with indication, where appropriate, of the rele	evant passages	Relevant to claim No.	
Α	WO 97 10678 A (BLATTER HAROLD ;TH CONSUMER ELECTRONICS (US)) 20 March 1997 (1997-03-20) abstract; figure 3 page 5, line 16 -page 10, line 34		1,10	
Α	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 02, 26 February 1999 (1999-02-26) & JP 10 304272 A (KENWOOD CORP), 13 November 1998 (1998-11-13) abstract			
A	EP 0 833 506 A (FUJI PHOTO FILM 0 1 April 1998 (1998-04-01) abstract; figure 2	CO LTD)	1,10	
Fur	ther documents are listed in the continuation of box C.	X Patent family members are listed	in annex.	
"A" docum consi "E" earlier filing "L" docum which citatic "O" docum other	nent which may throw doubts on priority claim(s) or	"T" later document published after the inte or priority date and not in conflict with cited to understand the principle or the invention "X" document of particular relevance; the cannot be considered novel or cannot involve an inventive step when the do "Y" document of particular relevance; the cannot be considered to involve an inventive step when the do "Y" document is combined with one or moments, such combination being obvious in the art. "&" document member of the same patent	the application but cory underlying the laimed invention be considered to cument is taken alone laimed invention ventive step when the ore other such docu- us to a person skilled	
	e actual completion of the international search 27 October 2000	Date of mailing of the international sea $06/11/2000$	arch report	
	mailing address of the ISA	Authorized officer		
ivaine and	Mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Pigniez, T		

INTERNATIONAL SEARCH REPORT

ation on patent family members

ational Application No
PCT/US 00/17477

Patent document cited in search rep		Publication date	1	Patent family member(s)	Publication date
WO 9710678	A	20-03-1997	AU	6977496 A	01-04-1997
	- '		AU	7071296 A	01-04-1997
			AU	7071396 A	01-04-1997
			AU	7109396 A	01-04-1997
			AU	7159296 A	01-04-1997
			BR	9610521 A	30-03-1999
			B R	9610529 A	06-07-1999
			BR	9610539 A	06-07-1999
			BR	9610549 A	06-07-1999
			CN	1200859 A	02-12-1998
			ČN	1200858 A	02-12-1998
			ČN	1201579 A	09-12-1998
			CN	1201575 A	09-12-1998
			CN	1201580 A	09-12-1998
			DE	69601583 D	01-04-1999
			DE	69601583 T	24-06-1999
			DE	69606185 D	17-02-2000
			DE	69606185 T	25-05-2000
			EP	0850541 A	01-07-1998
			EP	0850542 A	01-07-1998
			EP	0850543 A	01-07-1998
			EP	0850544 A	01-07-1998
			ĒΡ	0853858 A	22-07-1998
			ES	2140898 T	01-03-2000
			JP	11512584 T	26-10-1999
			JP	11512585 T	26-10-1999
			JP	11512586 T	26-10-1999
			JP	11512587 T	26-10-1999
			JP	11512588 T	26-10-1999
			ÜS	6034738 A	07-03-2000
			WO	9710679 A	20-03-1997
			WO	9710680 A	20-03-1997
			WO	9710681 A	20-03-1997
			WO	9710682 A	20-03-1997
JP 10304272	 : A	13-11-1998	NON		
EP 0833506	, A	01-04-1998	DE	69129730 D	13-08-1998
			DE	69129730 T	12-11-1998
			EP	0484981 A	. 13-05-1992
			JP	2898807 B	02-06-1999
			JP	5216463 A	27-08-1993
			US	5426731 A	20-06-1995
			US	5327156 A	05-07-1994

EXPRESS MAIL EL9023

From the

INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

KIEL, Paul P.
THOMSON MULTIMEDIA LICENSING INC.
P.O. Box 5312

2 Independence Way Princeton, New Jersey 08540

ETATS-UNIS D'AMERIQUE

INC.

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing

(day/month/year)

13.09.2001

Applicant's or agent's file reference

International application No. PCT/US00/17477

RCA89633

International filing date (day/month/year)

26/06/2000

Priority date (day/month/year)

IMPORTANT NOTIFICATION

15/07/1999

Applicant

THOMSON LICENSING S.A.

- 1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
- 2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
- 3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the

PCT Applicant's Guide.

Event

Deadline |

5 NOV 200 1

Name and mailing address of the IPEA/

European Patent Office D-80298 Munich

Tel. +49 89 2399 - 0 Tx: 523656 epmu d

Fax: +49 89 2399 - 4465

Schalinatus, D

Enterna dinorized officer

Tel.+49 89 2399-8242





PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

, ,	•	s file reference	FOR FURTHER ACTIO			ation of Transmittal of International Examination Report (Form PCT/IPEA/416)
RCA896						· · · · · · · · · · · · · · · · · · ·
Internation			International filing date (day/r	nonth/ye	ear)	Priority date (day/month/year)
PCT/US			26/06/2000			15/07/1999
International H04N9/6		Classification (IPC) or na	ational classification and IPC			
110-4140/0	,					
		•				
Applicant			•			
THOMS	ON LICE	ENSING S.A.				
			nination report has been prepaction according to Article 36.	ared b	y this Inte	rnational Preliminary Examining Authority
						· .
2. This l	REPORT	consists of a total of	f 5 sheets, including this cov	er she	et.	
						n, claims and/or drawings which have ctifications made before this Authority
			07 of the Administrative Inst			
These	o annove	es consist of a total o	F2 chaota			
rnes	e annexe	es consist of a total o	1 2 Sileets.			
3. This r	eport co	ntains indications rela	ating to the following items:			
	. 157 -					
. I		asis of the report	•			
11		•	ppinion with regard to novelty	invor	ntive eten	and industrial applicability
IV		ack of unity of inventi	•	, ilivei	ilive step	and industrial applicability
v	⊠R	easoned statement u	nder Article 35(2) with regar		velty, inve	entive step or industrial applicability;
	_	•	ons suporting such statemer	nt		
VI		ertain documents cit				
VII	_		nternational application			
VIII	⊠ C	ertain observations o	n the international application	n		
•						
Date of sub	mission c	f the demand	Da	e of cor	mpletion of	this report
09/02/20	01		13.	09.200 ⁻	1	
Name and	mailing ac	Idress of the internation	al Au	horized	officer	SODES MY.
preliminary	examinin	g authority:				at the state of th
<i>m</i>		an Patent Office B Munich	l ue	ybach	R	
	Tel. +49	89 2399 - 0 Tx: 52365	6 epmu d	yuacı	i, F1	Land State of the
	Fax: +4	9 89 2399 - 4465	I Tol	anhana	No. ±49.89	1 0000 0000

Telephone No. +49 89 2399 8990

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US00/17477

I. Basis of the report

	an		response to an invitation ui to this report since they do r						
	1-8	3	as originally filed	•					
	Cla	nims, No.:		·					
	1-8	1)	as received on	13/08/2001					
	Dra	awings, sheets:			i kanala sa				
	1-3	:	as received on	03/02/2001	with letter of	29/01/2001			
2.			guage, all the elements mai international application wa						
	The	ese elements were	available or furnished to this	s Authority in the fo	ollowing language:	, which is:			
		the language of a	translation furnished for the	purposes of the i	nternational search	n (under Rule 23.1(b)).			
		☐ the language of publication of the international application (under Rule 48.3(b)).							
		the language of a 55.2 and/or 55.3).	translation furnished for the	purposes of inter	national preliminar	y examination (under Rule			
		With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the nternational preliminary examination was carried out on the basis of the sequence listing:							
		contained in the in	ternational application in w	ritten form.					
		☐ filed together with the international application in computer readable form.							
		☐ furnished subsequently to this Authority in written form.							
		furnished subsequently to this Authority in computer readable form.							
		The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.							
		The statement that listing has been fu	t the information recorded in rnished.	n computer readat	ole form is identical	I to the written sequence			
4.	The	amendments have	resulted in the cancellation	of:					
		the description,	pages:						
		the claims,	Nos.:						

1. With regard to the elements of the international application (Replacement sheets which have been furnished to

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US00/17477

		the drawings,	sheets:		
5. This report has been established as if (some of) the amendments had not been made, since they considered to go beyond the disclosure as filed (Rule 70.2(c)):					
		(Any replacement sh report.)	eet contail	ning such	amendments must be referred to under item 1 and annexed to this
6.	Add	litional observations, i	f necessar	y :	
٧.		nsoned statement un ntions and explanatio			ith regard to novelty, inventive step or industrial applicability;
1.	Stat	tement			
	Nov	velty (N)	Yes: No:	Claims Claims	1-8
	Inve	entive step (IS)	Yes: No:	Claims Claims	1-8
	Indu	ustrial applicability (IA)	Yes: No:	Claims Claims	1-8
		,			

2. Citations and explanations see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made: see separate sheet

EXAMINATION REPORT - SEPARATE SHEET

Article 6, PCT

Claims 1 and 6 define a means and method for generating an OSD signal 1. comprising a colour palette and a plurality of colour conversion means. However the claim does not state that and on which basis the OSD signal is originally generated before it is converted and finally combined with the first or second video signal.

For the purpose of further examination the claims are interpreted such that an OSD signal is generated on the basis of a colour palette of a predetermined colour format. This OSD signal is then converted by one of the plurality of conversion matrices into the desired output format to be combined with the video signal.

Article 33 PCT

2. The object of the invention is to provide an OSD signal generator which can be used together with different video formats. In particular the colour, the OSD is generated in, should be kept the same when it is combined with differed video signals having different colour formats.

According to the invention this is achieved by generating the OSD signal on the basis of a predetermined colour palette having a predetermined colour format. Then the generated OSD signal is converted by one of several colour conversion matrices, which are selected according to the desired video output colour format, into an OSD signal having a colour format matching the video signal colour format.

3. Prior art

The abstract of JP10 304272 discloses a method of producing graphics having a colour format that matches the colour format of a received signal wherein the signal source type is identified (NTSC,PAL), a graphics signal is generated and overlayed on the NTSC/PAL signal and the selected type is displayed (in RGB format).

WO97/10678 discloses in Fig. 2 a digital/analogue VTR which is connected to a

INTERNATIONAL PRELIMINARY

International application No. PCT/US00/17477

EXAMINATION REPORT - SEPARATE SHEET

digital receiver and a TV. The VTR has OSD capability to produce an overlay over analogue or digital signals. For this different horizontal and vertical timing is provided to the OSD circuit.

EP-A-0 833 506 discloses to transform video signals (NTSC, RGB, S-video) into VGA signals and vice versa. The input video signals are converted to RGB and mixing with an OSD signal seems to take place with the RGB signal similar to what is described in the description of this application.

There is no hint in the available prior art to correct the colour of the OSD in response to the colour format of the output signal by generating the OSD in one format and converting it into the desired format for combination with the video signal.

5

10

15

20

25

9 531 Rec'd PCT/PTC 1 0 JAN 2002

1. A video signal processing apparatus, comprising:

a first video signal source (150) for providing a first video signal having a first color format;

a second video signal source (151) for providing a second video signal having a second color format;

means for generating an On Screen Display (OSD) signal (103,105,165) formatted in accordance with the first or second color format, the generating means comprising

a color palette (125) that includes color information formatted in accordance with a predetermined color format, and

a plurality of color conversion matrices (107, 109) for converting the color information in the color palette to provide the OSD signal, which is formatted in accordance with a selected one of the first or second color format, in response to the selection of the first or second video signal source; and

means (110,140,122), operatively coupled to the OSD generating means and the first and second video signal sources, for combining the OSD signal generated by the OSD generating means with the selected one of the first or second video signals.

- 2. The apparatus of claim 1, wherein the color palette (125) comprises color information formatted in the RGB format.
- 3. The apparatus of claim 1, wherein the plurality of conversion matrices (107, 109) includes a conversion matrix for converting the color information in the color palette into Y, P_R, P_B format, and a conversion matrix for converting the color information in the color palette into Y, P_I, P_Q format.
- 4. The apparatus of claim 1, wherein the first video signal is an analog television signal.
- 5. The apparatus of claim 1, wherein the second video signal is a digital television signal.

30

5

10

15

20

6. A method of producing graphics having a color format that matches the color format of a received signal, the method comprising the steps of:

selecting a video signal source from a plurality of video signal sources (150,151), the signal source providing video signals formatted in accordance with a first color signal format;

providing a color palette (125) that includes color information formatted in accordance with a predetermined color format;

providing a plurality of color conversion matrices (107, 109), wherein each color conversion matrix is adapted to convert the color information in the color palette to provide a graphics signal that is formatted in accordance with a particular color format;

selecting a desired one of the plurality of color conversion matrices that corresponds to the selected video signal source and generating a graphics signal (Y,P_R,P_B;Y,P_I,P_Q) formatted in accordance with the first color signal format; combining the graphics signal with the received signal; and processing the combined signal to generate an output signal (RBG).

- 7. The method of claim 6, wherein the color palette comprises color information formatted in the RGB format.
- 8. The method of claim 6, wherein the color conversion matrices convert the color information in the color palette into one of a Y, P_R , P_B formatted signal and Y, P_I , P_Q formatted signal.

WO 01/06797

What is claimed is:

A video signal processing apparatus,
 comprising:

a first video signal source (150) for providing a first video signal having a first color format;

a second video signal source (151) for providing a second video signal having a second color format;

means for generating an On Screen Display (OSD) signal (103,105,165) having one of a plurality of color formats, the generating means having a plurality of color palettes, each palette having color information in a particular color format; and

means for combining the OSD signal (110,140) with a selected one of the first or second video signals, the generating means providing the OSD signal in a color format that corresponds the color format of the selected one of the first or second video signals.

20

10

15

- 2. The apparatus of claim 1, wherein one of the plurality of color palettes (103) comprises color information in a Y, $P_{\rm R}$, $P_{\rm B}$ format.
- 3. The apparatus of claim 1, wherein one of the plurality of color palettes (105) comprises color information in a Y, $P_{\rm I}$, $P_{\rm O}$ format.
- 4. The apparatus of claim 1, wherein the first video signal is an analog television signal.
 - 5. The apparatus of claim 1, wherein the second video signal is a digital television signal.
- 35 6. The apparatus of claim 1, wherein the generating means comprises:

a single color palette (125) comprising color information in a fourth color format; and

WO 01/06797 PCT/US00/17477

a plurality of color conversion matrices (107,109) adapted to be selectively coupled to the single color palette.

- 7. The apparatus of claim 6, wherein the first color format is RGB format.
- 8. The apparatus of claim 6, wherein the conversion matrices (107) convert the first color format into Y, P_R , P_B format.
 - 9. The apparatus of claim 6, wherein the conversion matrices (109) convert the first color format into Y, $P_{\rm I}$, $P_{\rm Q}$ format.

15

10. A method of producing graphics having a color format that matches the color format of a received signal, the method comprising the steps of:

identifying a signal source type (150,151) 20 associated with a received signal;

selecting a color palette (103,105) having a color format that matches the format of the received signal;

generating a graphics signal $(Y, P_R, P_B; Y, P_I, P_Q)$ in response to the selected color palette;

combining said graphics signal with the received signal; and

processing the combined signal to generating an output signal (RBG).

30

11. The method of claim 10, further comprising the step of:

producing the selected color palette by converting a single color palette into a plurality of color palettes using a plurality of color conversion matrices.

12. The method of claim 11, wherein the color conversion matrices convert an RGB formatted signal into a Y, $P_{\rm R}$, $P_{\rm B}$ formatted signal.

13. The method of claim 11, wherein the color conversion matrices convert an RGB formatted signal into a Y, P_{I} , P_{Q} formatted signal.

MAILING TO U.S. Patent and Trademark Offic

10/030834

Report to Data Base

ATTN: BOX PCT

006M Filing Fee Exp. Mail 099M Add.Payment ofFee 006M Filing Missing Pare 009M Ext Time§ 1.136(a) 063M Asgn & Rec. Form Recordation Fee 068M Notif. of For. Ref. 081M Appt. Atty/Agent 066M Corr. Of Record Fee Transmittal Form Date Deposited: January 10, 2002 xM Please Specify: EXPRESS MAIL EL902321815US **Express Mail Application** 066M Letter to PO Amount of Fee \$ 021 Issue Fee 01/15/02 Due Charge 01/10/02 Mailed Transmittal Ltr. To US Design. Office Statement under CFR § 1.56-013M Assignment & Recordation Sheet 013M IDS with 3 References Docket No. RCA 89633 Seriativo. () () Filed: et al. Attylagent P.P. Kiel Inventor(s) Charles Bailey Neal Attylagent P.P. Kiel Title: METHOD AND APPARATUS FOR PROVIDING ON-SCREEN DISPLAYS FOR A MULTI-COLORIMETRY RECEIVER Check Hems Mailed with Application 090M Prelim. Amendment 084M Supp. Declaration 009M Ext.Time§1.136(b) 133M Pet. To Withdraw. 086M Term. Disclaimer 027M Statement NASA 064M Claim Disclaimer 032 Notice of Appeals 037M Appeal Brief REQUESTS 082M Status Letter 084M Declaration OTHER Priority Document APPEALS 039M Reply Brief 076M Cert. Corr. Fee Transmittal Declaration Dae **US Provisional** APPLICATION AS FILED US PCT NAT Continuation Other PCT Mailed Divisional Reissue Re-Exam CPA Check Type 126M Reg. Priority 35USC119 references 013M Statement under §1.56 019M After Allowance U/R312 Page(s) of Drawing(s) 012M After Final Rejection 079M Dwg. Correction(s) AMENDMENTS 131M Statement DOE 007M Lic. To For. File Certificate of Mailing 008M After Rejection 083M Supplemental OTHER Claims in Excess 20 Independent Claims Specification Pages Sheets of Drawings 090M Voluntary Abstract Pages 013M IDS w/ Claim Pages **Enter Number** Charge Die Docewee \$930.00 Enter Date App. Mailed Mailed 01/10/02 005M

*Copy of Int'l Prel. Exam. Report

Invitation to Correct

JG03 Rec'd PCT/PTO IL O JAN 2002